

35 U.S.C. § 101

The Examiner rejected claims 17-24 and 33-48 under 35 U.S.C. § 101. This rejection is traversed. As to claims 17-24, claim 17 clearly sets forth the "apparatus." For example, a "communication coordinator for receiving a subscription request" is a device which must be capable of "receiving" a subscription request. Software has no ability to "receive" any signal or data. It can be used by hardware to process or manipulate data, but in and of itself has no such ability. Additionally, there is no requirement under 101 that a "hardware component" be claimed. See for example, **Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings**, 370 F.3d 1354 (CAFC 2005) (**Lab. Corp. of Am. v. Metabolite Labs.**, 2006 U.S. LEXIS 5234 *Cert Denied* (U.S., June 30, 2006)), "13. A method for detecting a deficiency of cobalamin or folate in warm-blooded animals ... comprising the steps of: assaying a body fluid for an elevated level of total homocysteine; and correlating an elevated level of total homocysteine in said body fluid with a deficiency of cobalamin or folate." There is no requirement that the test involve physical manipulation of the body fluid or any other physical step. See also *In re Lungren*,

"Since the Federal Circuit has held that a process claim that applies a mathematical algorithm to "produce a useful, concrete, tangible result without pre-empting other uses of the mathematical principle, on its face comfortably falls within the scope of § 101," *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999), one would think there would be no more issues to be resolved under 35 U.S.C. § 101. However, the examiner is of the opinion that there is a separate test for determining whether claims are directed to statutory subject matter, i.e., a "technological arts" test." Appeal No. 2003-2088 at 5.

"In *Musgrave*, the court reversed a rejection under 35 U.S.C. § 101 that the claims under review therein were non-statutory because it disagreed with the

Board that "these claims . . . are directed to non-statutory processes merely because some or all of the steps therein can also be carried out in or with the aid of the human mind or because it may be necessary for one performing the processes to think." Musgrave 431 F.2d at 893, 167 USPQ 289. After so holding, the court went on to observe "[a]ll that is necessary, in our view, to make a sequence of operational steps a statutory 'process' within 35 U.S.C. § 101 is that it be in the technological arts so as to be in consonance with the Constitutional purpose to promote the progress of 'useful arts.' Const. Art. 1, sec. 8." Id. at 7.

"The court [in Toma] then stated that cases such as Musgrave involved what was called at that time a "mental steps" rejection and observed,"[t]he language which the examiner has quoted was written in answer to 'mental steps' rejections and was not intended to create a generalized definition of statutory subject matter. Moreover, it was not intended to form a basis for a new § 101 rejection as the examiner apparently suggests." Id. at 878, 197 USPQ at 857. We do not believe the court could have been any clearer in rejecting the theory the present examiner now advances in this case." Id. 7,8.

There is no "mental steps" rejection and no requirement that a "hardware component" be incorporated into the claim. "The examiner first shall review the claim and determine if it provides a transformation or reduction of an article to a different state or thing. If the examiner finds such a transformation or reduction, the examiner shall end the inquiry and find that the claim meets the statutory requirement of 35 U.S.C. § 101. If the examiner does not find such a transformation or reduction, the examiner has not determined as a final matter that the claim is non-statutory. The examiner must proceed in further inquiry." Interim Guidelines of Patent Applications for Patent Subject Matter Eligibility, p. 19. "For eligibility analysis, physical transformation "is not an invariable requirement, but merely one example of how a mathematical algorithm [or law of nature] may bring about a useful application." AT&T, 172 F.3d at 1358-59, 50 USPQ2d at 1452." Id. at 20. An invention need only be a "practical application that produces a useful, tangible and concrete result." Id. at 20. Useful is defined as "specific, substantial and credible;" tangible is defined not as "tied to a particular machine or

apparatus” but as a “practical application to produce a real-world result;” and concrete is defined as “substantially repeatable.” Id. at 20-22.

As noted above, the Examiner bears the burden of establishing that the claims do not meet the requirements as set out above in the guidelines. However, for at least the reasons stated above, claim 17 has a “hardware component,” namely the communication coordinator, and therefore the Applicant requests that the Examiner withdraw this rejection. For the same reasons, claims 33-48 should be allowed for at least the reason that there is no legal requirement that the claim be “tangibly embodied.” In claim 33, the instructions are limited to causing processors or other hardware to carry out the publish and subscribe system recited therein, a practical application.

35 U.S.C. § 103

The Examiner rejected claims 1-24, 33-48 and 61-70 under 35 U.S.C. § 103 over Bracho. This rejection is respectfully traversed.

Obviousness, ultimately, is a determination of law based on underlying determinations of fact. Monarch Knitting Machinery Corp. v. Sulzer Morat GmbH, 139 F. 3d 877, 881 (Fed. Cir. 1998) “These underlying factual determinations include (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and, (4) the extent of any proffered objective indicia of non-obviousness.” Id.

“During examination, *the examiner bears the initial burden of establishing a prima facie case of obviousness*...The prima facie case is a procedural tool, and requires the

examiner to initially produce evidence to support a ruling of obviousness. In re Kumar, 418 F.3d 1361, 1366, 76 USPQ 1048 (Fed. Cir. 2005)(emphasis added).

Before any finding of obviousness under 35 U.S.C. § 103 can be made, what constitutes “prior art” under 35 U.S.C. § 103 must first be determined. As the United States Court of Appeals for the Federal Circuit expressly stated, “[a]lthough § 103 does not, by its terms, define the ‘art to which [the] subject matter [sought to be patented] pertains,’ this determination is frequently couched in terms of whether the art is analogous or not, i.e., whether the art is ‘too remote to be treated as prior art.’” In re Clay, 966 F.2d 656, 658 (Fed. Cir. 1992). In other words, if a particular reference is non-analogous art to the claimed invention, it cannot be used to support a finding of obviousness under 35 U.S.C. § 103. Id. at 658 to 660.

“Two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor’s endeavor, whether the reference is still reasonably pertinent to the particular problem with which the inventor is involved.” Id. at 659. “A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor’s endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor’s attention in considering this problem. Thus, the purposes of both the invention and the prior art are important in determining whether the reference is reasonably pertinent to the problem the invention attempts to solve.” Id.

The invention must be considered as a whole without the benefit of hindsight, and the claims must be considered in their entirety. Rockwell International Corp. v. United States, 1473 F.3d 1358, 1364 (Fed. Cir. 1998)

"One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." In re Fine, 837 F.2d 1071, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988). It is impermissible to use the claimed invention as a blueprint from which to reconstruct the prior art to satisfy the claimed invention. Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 227 USPQ 543, 548 (Fed. Cir. 1985) ("From its discussion of the prior art it appears to us that the court, guided by the defendants, treated each reference as teaching *one* or more of the specific components for use in the Feil system, although the Feil system did not then exist. Thus the court reconstructed the Feil system, using the blueprint of the Feil claims. As is well established, this is legal error.")

The prior art must be considered as a whole and suggest the desirability and thus the obviousness of making the combination. Lindermann Maschinefabrik GmbH v. American Hoist and Derrick Co., 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984)

There must be a suggestion or motivation in the prior art to modify a reference to satisfy the claimed invention. In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."

Id. (emphasis added)

"When an obviousness determination is based *on* multiple references, there must be a showing of some 'teaching, suggestion, or reason' to combine the references...Although a reference need not expressly teach that the disclosure contained therein should be combined with another the showing of combinability, in whatever form, must be '*clear and particular*.' ", Winner International Royalty Corp. v.

Wang, 202 F.3d 1340, 1348-1349 (Fed. Cir.), cert. denied, 530 U.S. 1238 (2000)(emphasis added)

“The factual inquiry whether to combine references must be thorough and searching’...*It must be based on objective evidence of record.* This precedent has been reinforced in myriad decisions and cannot be dispensed with...The need for specificity pervades this authority...This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority...‘*Common knowledge and common sense,*’ even if assumed to derive from the agency’s expertise, do not substitute for authority when the law requires authority.” In re Lee, 277 F.3d 1338, 1343-1345 (Fed. Cir. 2002)

Bracho is non-analogous art and cannot be combined with the prior devices. The Bracho et al. patent merely shows the use of publishing information by one legacy system using a “universal” language so that a local hub can receive sales information from a Point of Sale system by acting as an intermediate database translation device from the legacy (“proprietary”) system to a universally understood data block. The published data is its own end, such as a sales record, and is not used to control the network other than perhaps routing of the data itself to the proper recipient using IP protocol (i.e., “content-based” routing). For at least these reasons, claim 1 should be allowed over the prior art. One skilled in the art of making advanced telecommunication switches and line modules would not look to a point of sale system or an advertising broadcast system while constructing the switches and modules. Further, what software is easily run in Windows or here, more likely UNIX, would not easily translate to programming network switches. Despite the liberal reading of a computer network as a “switch” and “modules,” the two systems are not analogous as one facilitates simple communication of data between two

computers running common software, whereas the switches of the current system operate to control communication lines to steer information from one site to another. The “hub” of Bracho is not similar or analogous in any way to the switch of the current system, despite the fact that the hub may contain a “switch” of some type in it. There is no indication that the switches in the “hub” of Bracho are controllable in anyway by the software and the subscription/publication software as they are merely “dumb” switches that operate to connect the computers in an Ethernet, TCP/IP based system or at best operate to direct the “data” of the publication itself and do not control the switches based on the content to switch a separate communication network.

Further, there is no “teaching” to combine the references. *There must be a suggestion or motivation in the prior art to modify a reference to satisfy the claimed invention. In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984). “*The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.*” *Id.* There is no motivation for combining the references other than hindsight. There is no teaching of controlling an advanced communication network, only the teaching of converting sales information to a universal language so that it can be tracked at a remote location. The publish/subscribe system is not used to control any advanced devices, but is merely data transferred between personal computers.

For at least these reasons, the claims should be allowed over the art of record.

Summary

Applicants have made a diligent and bona fide effort to answer each and every ground for rejection or objection to the specification including the claims and to place the application in condition for final disposition. Reconsideration and further examination is respectfully requested, and for the foregoing reasons, Applicant respectfully submits that this application is in condition to be passed to issue and such action is earnestly solicited. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Robert N. Blackmon, Applicants' Attorney at 703-684-5633 to satisfactorily conclude the prosecution of this application.

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Respectfully submitted,



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